



BP CASE NO. BPCL 8651 Cog.

SPECIFICATION

08/687811

TO ALL WHOM IT MAY CONCERN

Be it known that WE, Martin Philip ATKINS and Bhushan SHARMA both subjects of the Queen of Great Britain residing at 29 Chaucer Road, Ashford, Middlesex, TW15 2QU, ENGLAND and 43 Midsummer Avenue, Hounslow, Middlesex, TW4 5AY, ENGLAND have invented certain new and useful improvements relating to "Ester Synthesis" of which the following is a specification.

#### ABSTRACT OF THE DISCLOSURE

This invention relates to a process for the production of lower aliphatic esters by reacting a lower olefin with a saturated lower aliphatic mono-carboxylic acid in the vapour phase in the presence of a heteropolyacid catalyst characterised in that an amount of water in the range from 1-10 mole % based on the total of the olefin, aliphatic mono-carboxylic acid and water is added to the reaction mixture during the reaction. The presence of water enhances the yield of the desired ester. The reaction mixture may optionally contain a di-ether to minimise the by-products.

The process is particularly suitable for producing ethyl acetate from ethylene and acetic acid in the presence of water.